(No Model.) 3 Sheets—Sheet 1.

W. M. WRIGHT & H. J. RODGERS.

LEATHER CHANNELING MACHINE.

No. 417,459. Patented Dec. 17, 1889.

Fig. 2.

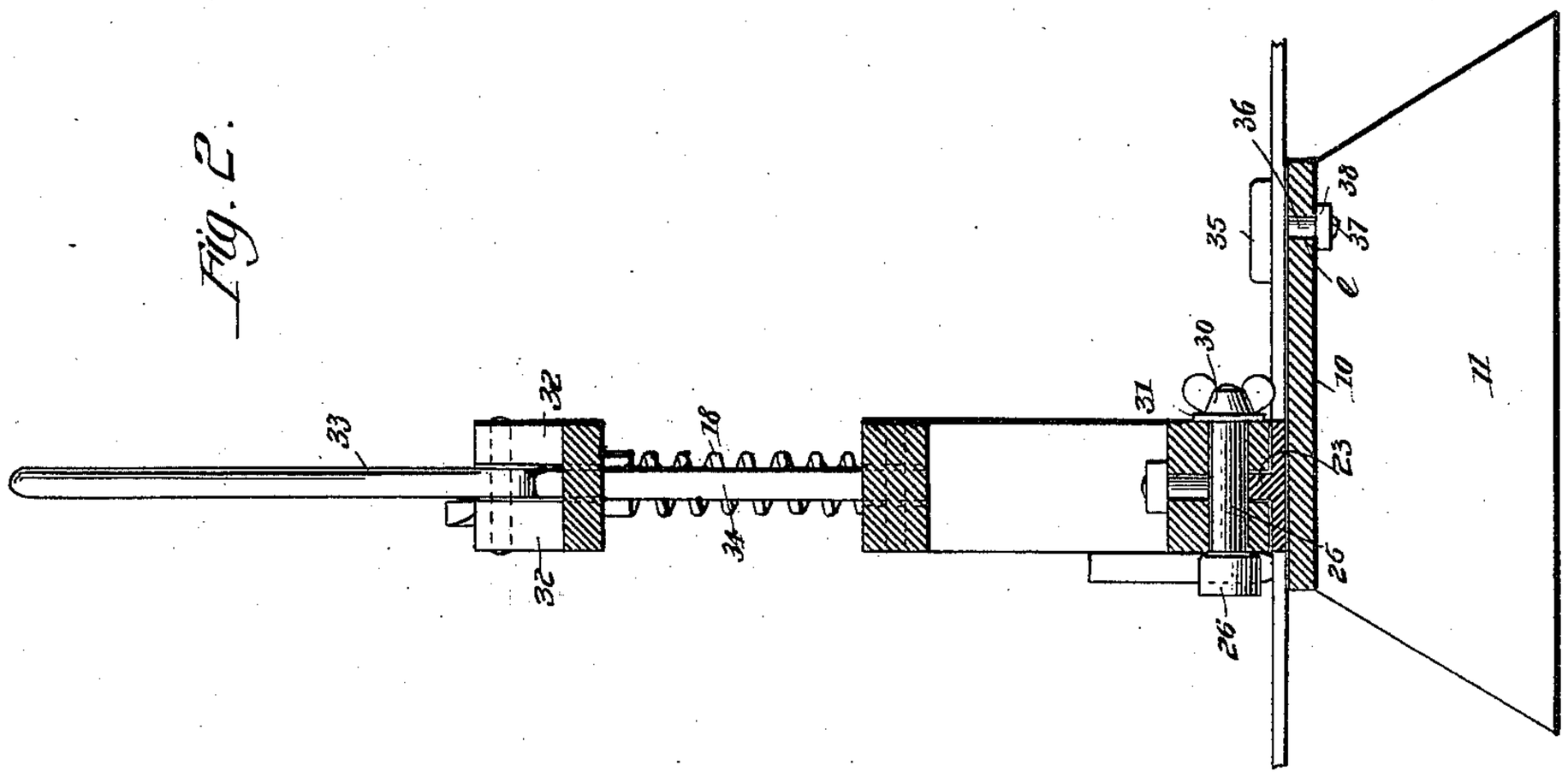

Fig. 1.

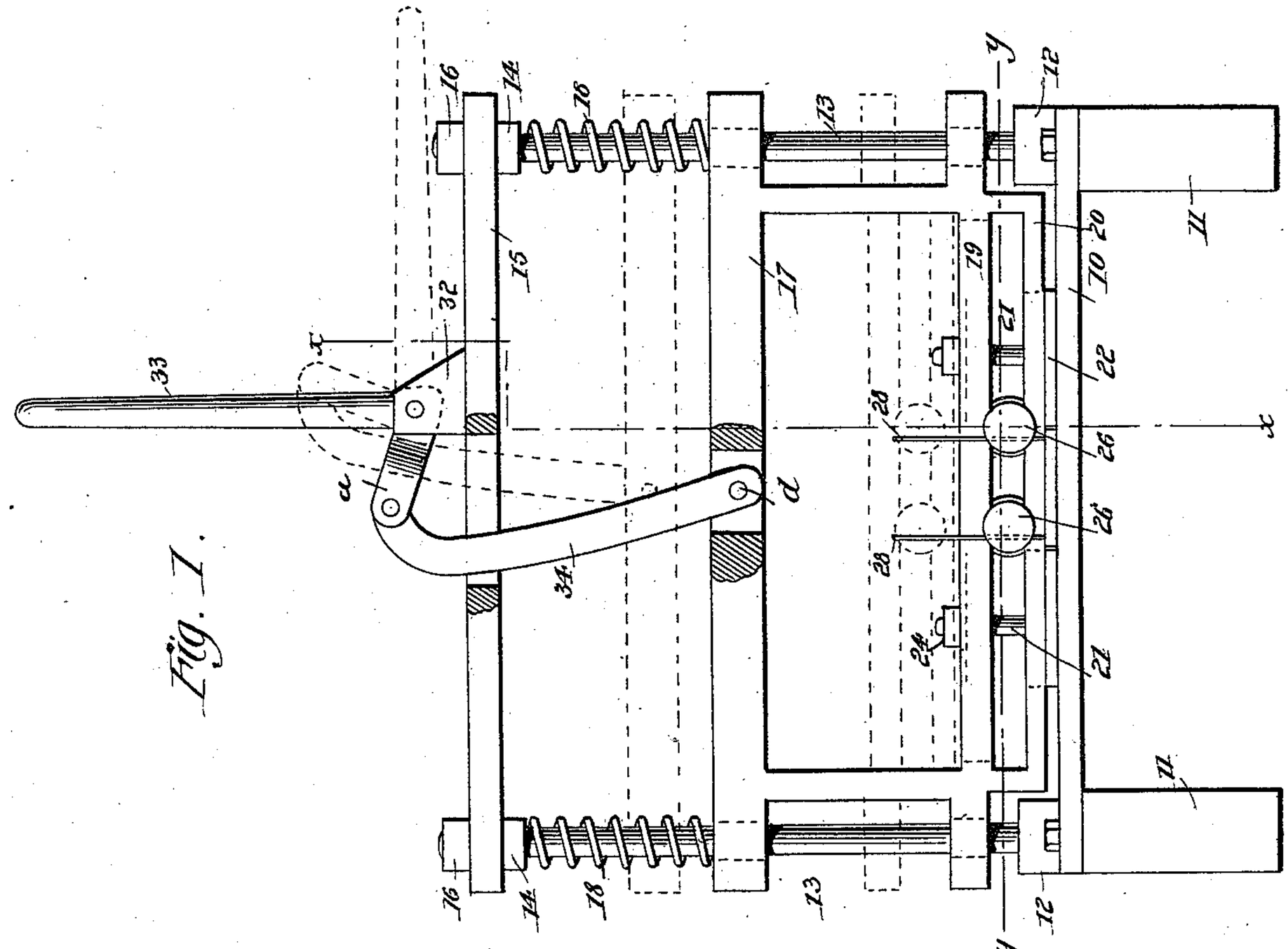

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Fig. 5.

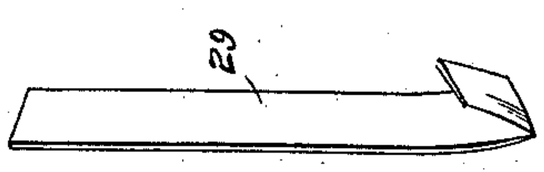

Fig. 4.

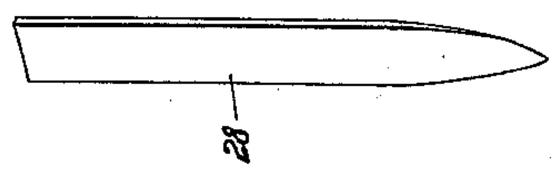

Fig. 3.

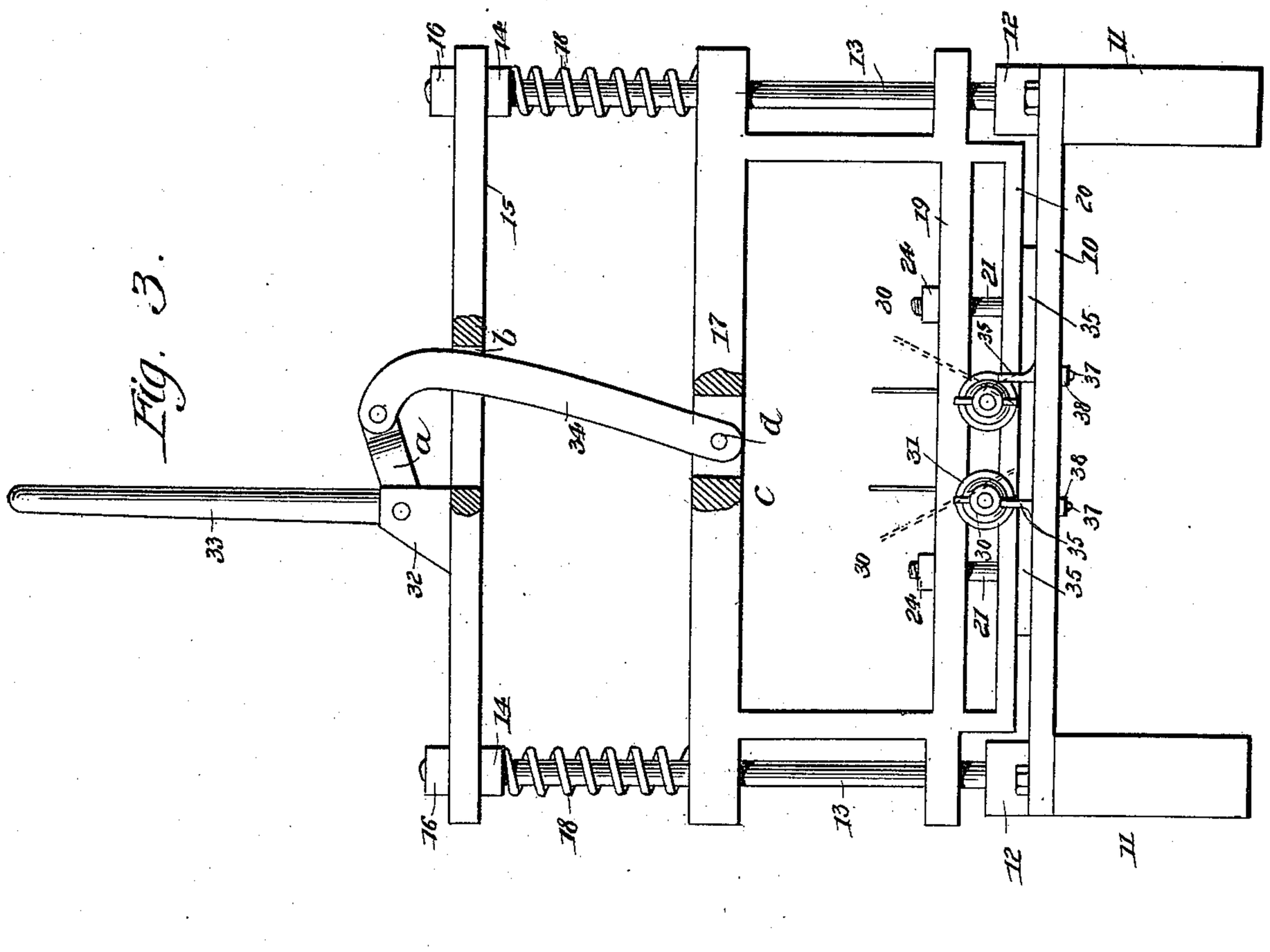

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Fig. 7.

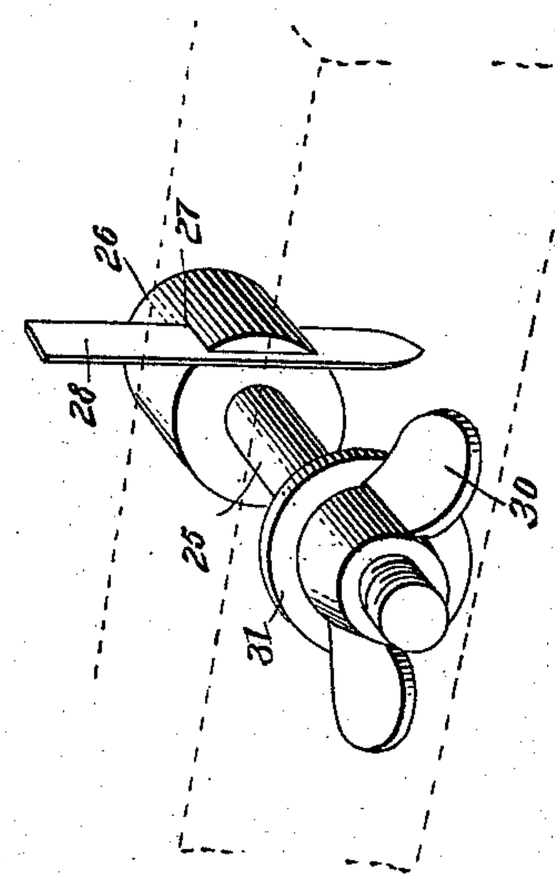
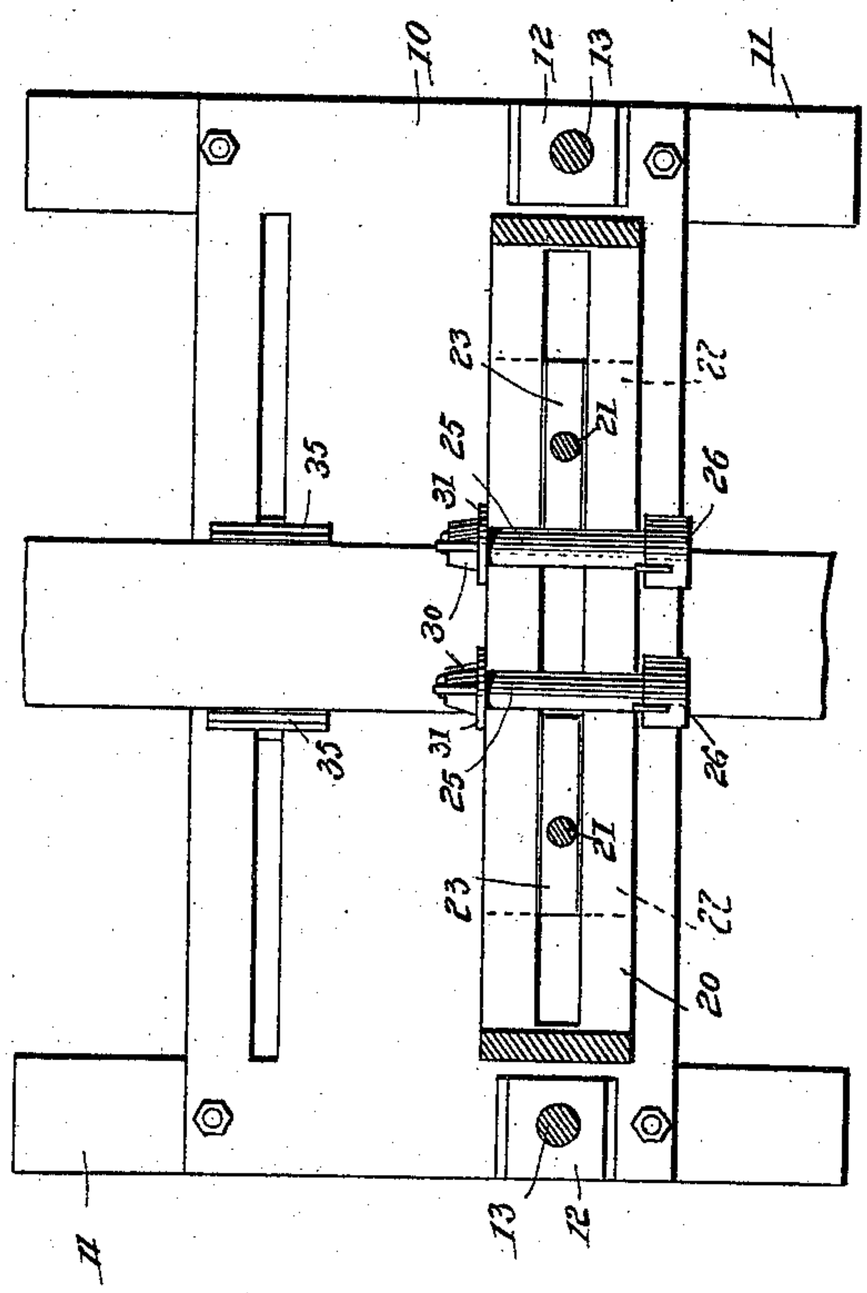


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM M. WRIGHT AND HENRY J. RODGERS, OF WAVERLY, ILLINOIS.

LEATHER-CHANNELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 417,459, dated December 17, 1889.

Application filed February 25, 1889. Serial No. 301,087. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM M. WRIGHT and HENRY J. RODGERS, both of Waverly, in the county of Morgan and State of Illinois, have invented a new and Improved Double-Adjustable Leather-Channeling Machine, of which the following is a full, clear, and exact description.

Our invention relates to leather-channeling machines, the object of the invention being to provide a machine which may be adjusted to produce channels such as are necessary upon round lines, reins, traces, (both for the inner and outer leather,) for splitting straps to be used as crown-pieces of bridles, and for all analogous work.

To the end named the invention consists of certain novel constructions, arrangements, and combinations, to be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of our improved double leather-channeling machine. Fig. 2 is a cross-sectional view on line *x x* of Fig. 1. Fig. 3 is a view of the back of the machine. Figs. 4 and 5 are perspective views of the knives employed in connection with our machine. Fig. 6 is a sectional view taken on line *y y* of Fig. 1, and Fig. 7 is a detail view of one of the knife-heads and a portion of the movable frame by which the knife-heads are carried.

In the drawings, 10 represents a base-plate which is made integrally with or rigidly connected to side supports 11. The base-plate 10 is formed with two centrally-apertured and upwardly-extending bosses 12, which serve as supports for vertical bolts 13, which said bolts carry nuts 14, that serve as supports for an upper cross-bar 15, said cross-bar being apertured to receive the bolt ends and being held to place by clamping-nuts 16.

The bolts 13 serve as guides for a frame 17, such frame being normally held in the position in which it is shown in the drawings by springs 18, that are coiled about the bolts and bear upon the upper face of the frame and against the under faces of the nuts 14. The tension of the springs 18 may, if desired, be regulated by turning the nuts 14 and 16 so that they will be carried upward or downward to impart the required degree of tension.

The frame 17 is provided with two horizontal cross-bars 19 and 20, such bars being longitudinally slotted to proviae for the passage of the shanks 21 of gages 22, said gages being formed with upwardly-extending ribs 23, which ride in the longitudinal slot of the lower cross-bar 20, the gages being held to place by nuts 24, that engage the upper ends of the shanks 21 above the cross-bar 19.

Between the cross-bars 19 and 20 we place the shanks 25 of cutter-heads 26, said cutter-heads being formed with recesses 27, adapted to receive the knife-blades 28 or 29. The recesses 27 extend from the inner faces of the heads toward the outer faces thereof; but the depth of these recesses is such that when the knives are placed therein the edges of the blades will bear against the faces of the cross-bars 19 and 20, in which position the blades are clamped by means of winged nuts 30, which engage the threaded ends of the shanks 25, washers 31 being interposed, as shown in Figs. 2, 3, 6, and 7.

The cross-bar 15 is provided with upwardly-extending bosses or projections 32, between which bosses or projections there is mounted a bell-crank lever 33, and to the short arm *a* of this lever 33 there is pivotally connected a link 34, which extends downward through a slot *b*, formed in the cross-bar 15, to enter a slot *c*, formed in the frame 17, the lower end of the link being connected to the frame by a pivot pin or bolt *d*.

In addition to the gages 22 we employ gages 35, said gages being provided with downwardly-extending ribs 36 and with shanks 37, the ribs resting in a longitudinal slot *e*, that is formed in the base-plate 10, while the shanks pass through said slot to engage binding-nuts 38, as shown in Fig. 2.

If the channel to be cut is to extend inward at right angles to the surface of the leather to be operated upon, we adjust the knives as represented in full lines in Figs. 1 and 3, and the gages 22 and 35 having been properly adjusted, we place the leather between said gages and upon the base-plate 10, the frame

17 at this time being raised, as indicated by dotted lines in Fig. 1. We then throw the lever 33 to the position in which it is shown in full lines in the drawings, whereby the frame 17 is carried to the position in which it is shown in full lines—that is, to a position such that the cutting-edges of the blades 28 will enter the upper surface of the leather. The leather is then drawn forward between the gages and the channel formed.

If the channel is to enter the leather at an angle, the knives are adjusted as represented by dotted lines in Fig. 3, and if an open channel is to be formed a blade such as the one shown in Fig. 5 is employed, this blade forming a V or U shaped channel.

The channeler above described will operate in connection with any thickness of leather, the springs 18 acting to hold the frame 17 in a position such that the blades will operate in a proper manner upon the leather.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a leather-channeling machine, the combination, with the slotted supporting-frame, of the sliding and spring-pressed frame mounted on the supporting-frame, cutter-heads mounted in the sliding frame, knives in the cutter-heads, the angle-lever pivoted on the supporting-frame, and a link pivoted to the short arm of the angle-lever and to the sliding frame, the said link working in the slot of the supporting-frame, substantially as described.

2. In a leather-channeling machine, the combination, with the frame 10 11, provided with bolts 13, and the slotted cross-bar 15, secured to the upper ends of the said bolts, of the frame 17, mounted to slide on the bolts, springs surrounding the bolts between the cross-bar 15 and frame 17, the elbow-lever 33, pivoted on the cross-bar 15, and the link 34, pivoted to the short arm *a* of the said lever and to the frame 17, cutter-heads 26, mounted in the frame 17, and knives in the cutter-heads, substantially as herein shown and described.

3. In a leather-channeling machine, the combination, with a supporting-frame, of the sliding frame 17, mounted on the supporting-frame and provided with cross-bars 19 and 20, the cutter-heads 26, provided with the recesses 27, the shanks 25, fitting between the bars 19 and 20 and having the winged nut 30 on its end, and knives in the said recesses, substantially as and for the purpose set forth.

4. In a leather-channeling machine, the combination, with a supporting-frame provided with the gages 35, of the sliding frame 17, provided with the longitudinally-slotted bars 19 and 20, the cutter-heads 26, having recesses 27 and provided with the winged nuts 30, the gages 22, secured in the slots of the said bars, knives in the recesses of the cutter-heads, and means for operating the sliding frame, substantially as herein shown and described.

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HENRY J. RODGERS.

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